

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A base station for assigning a radio communication resource by scheduling time slots to mobile stations for data communication, comprising:

transmission and reception means for conducting communication with mobile stations; and

control means for assigning a time slot preferentially to a first mobile station that needs to communicate with said base station for a first application that is given a higher priority over a second mobile station that needs to communicate with said base station for a second application that is given a lower priority lower than said higher priority given said first application.

wherein, if there is no free time slot in a next frame, then said control means reassigns a time slot, already assigned to said second mobile station, to said first mobile station, and data for said second mobile station is registered in a database for storing waiting data which awaits their turn for transmission.

2. (currently amended) The base station according to Claim 1, further comprising:

priority distinguishing means to distinguish the priority of the ~~object~~first or second application from signal data of radio channel assignment request sent from said first or second mobile station.

3. (previously presented) The base station according to Claim 2, further comprising:

storage means to store mapping between a code representing an application to be offered to said mobile station over a radio communication channel, included in said signal data of radio channel assignment request, and the priority of the application.

4. (previously presented) The base station according to any one of Claims 1, 2, or 3, wherein said base station assigns a plurality of radio communication channels to said mobile station that is making an attempt to communicate with said base station and call an application that is given high priority.

5. (previously presented) The base station according to Claim 4, further comprising:

means to measure radio communication quality of the channel between said base station and said mobile station,

wherein said control means makes said base station assign a plurality of radio communication channels to said mobile station based on said priority when radio

communication quality less than a predetermined quality-indicating-value has been measured by said means to measure radio communication quality.

6. (previously presented) The base station according to Claim 5, wherein said transmission and reception means transmits/receives data of same contents over said radio communication channels.

7. (currently amended) The base station according to any one of Claims [4,] 5, and 6, wherein said radio communication channels are provided in time slots by time division.

8. (previously presented) The base station according to Claim 5, wherein said means to measure radio communication quality calculates a ratio of the received times slots in error to the number of received time slots for a regular period.

9. (previously presented) The base station according to Claim 3, further comprising:
paging means for broadcasting the paging information on available applications.

10. (previously presented) The base station according to Claim 3, wherein said storage means is to retain different priority from that retained in its

adjoining base station even if said priority is given to a same application that both base stations offer it over their communication channels.

Claims 11-18 (canceled).

19. (previously presented) A digital radio communication system for multi-applications comprising:

a base station; and

a plurality of mobile stations,

wherein the mobile stations send the base station signal data of radio channel assignment request including a code representing an application to be offered over a radio communication channel;

wherein the base station comprises:

means of distinguishing the priority of the application, based on the code representing the application included in said signal data of radio channel assignment request sent from the mobile stations, and

means of assigning one radio communication channel or a plurality of channels to the mobile stations, based on said priority, according to said signal data of radio channel assignment request sent from the mobile stations,

wherein at least either said base station or each mobile station comprises a function of measuring the radio communication quality of the channel therebetween;

wherein the base station further comprises:

means to implement that if predetermined radio communication quality is not attained in a radio communication channel to be used for a higher priority application, in addition to the pre-assigned channel, a new channels are channel is reassigned to the mobile station using that channel so that same contents will be transmitted over a plurality of channels in for a regular period,

wherein the system comprises a means to implement that in a specific application service area constituted of two or more contiguous cells, different settings of the radio channel assignment priority of the application are to be assigned to the cells, according to the cell position along the direction in which mobile stations normally move.

Claim 20 (canceled).

21. (previously presented) A digital radio communication system for multi-applications comprising:

a base station; and

a plurality of mobile stations,

wherein the mobile stations send the base station signal data of radio channel assignment request including a code representing an application to be offered over a radio communication channel,

wherein the base station comprises:

means of distinguishing the priority of the application, based on the code representing the application included in said signal data of radio channel assignment request sent from the mobile stations, and

means of assigning one radio communication channel or a plurality of channels to the mobile stations, based on said priority, according to said signal data of radio channel assignment request sent from the mobile stations,

wherein at least either said base station or each mobile station comprises a function of measuring the radio communication quality of the channel therebetween;

wherein the base station further comprises:

means to implement that if predetermined radio communication quality is not attained in a radio communication channel to be used for a higher priority application, in addition to the pre-assigned channel, a new channels are channel is reassigned to the mobile station using that channel so that same contents will be transmitted over a plurality of channels in for a regular period,

wherein said radio communication channels are provided in time slots by time division, and

wherein the system comprises means to implement that in a specific application service area constituted of two or more contiguous cells, different settings of the radio channel assignment priority of the application are to be assigned to the cells, according to the cell position along the direction in which mobile stations normally move.